

Some jumping spiders of the genus *Zygoballus*
from India (Family: Salticidae)

B. K. TIKADER

Zoological Survey of India, Western Regional Station, Poona 411005

MS received 11 January 1975

(Communicated by Prof. T. S. Mahabalé, F.A.Sc.)

INTRODUCTION

PRACTICALLY there was no work in the past on jumping spiders from India, although jumping spiders are abundant throughout the country. Recently, I have published a few papers on this group of spiders (Tikader 1965, 1967, 1973 *a*, *b*, 1974 *a*, *b*).

While studying the jumping spiders of the family Salticidae, I came across several new species of spiders, some of which are described elsewhere. In the present paper I have dealt with jumping spiders of the genus *Zygoballus* Peckham. This genus is being recorded for the first time from India. I have described in this paper two new species of spiders of the genus *Zygoballus*.

All type specimens will in due course be deposited in the collection of the Zoological Survey of India, Calcutta.

GENUS *Zygoballus* PECKHAM

1885. *Zygoballus* Peckham, *Proc. Nat. Hist. Soc. Wis.*, **1**: 82.

1909. *Zygoballus* Peckham and Peckham, *Trans. Wis. Acad. Sci.*, **16**: 577.

1948. *Zygoballus* Kaston, *Spiders of Connecticut*, p. 496.

Characters: Cephalothorax high, and flat on the top, a little longer than wide, with a steep declivity just a little behind the posterior row of eyes. The widest part is at the position of posterior eyes where the width of the carapace is almost, or quite, seven-eighths the length. The ocular area occupying half the cephalothorax, eyes of second row very small, nearer the first than the third row. Third row as wide as cephalothorax. Coxae I separated by width of labium, which is not much, if at all, longer than wide. Sternum narrowing in front, and truncated. Legs I is heaviest and tibia provided with three pairs of ventral spines. In the males the chelicerae are powerfully developed and provided on the lower surface near the retro-

lateral edge with a heavy hammer-like process. Female chelicerae short, vertical, with a single tooth on inner margin.

Type species: *Zygoballus rufipes* Peckham.

Distribution: America, India.

1. *Zygoballus pashanensis* sp. nov.

General: Cephalothorax, legs and abdomen deep-brown. Total length 5.10 mm. Carapace 2.30 mm long, 2.00 mm wide; abdomen 3.00 mm long, 2.50 mm wide.

Cephalothorax: High and flat on the top, a little longer than wide, and behind with a very steep thoracic declivity over which the abdomen projects, clothed with small flat grey metallic scales and long black hairs. Posterior portions of cephalothorax slightly narrow than the anterior. Anterior row of eyes close together in a slightly recurved row. Second row of eyes very small and much nearer the first row than the third row. The third row of eyes situated on the elevated ridge near the middle of cephalothorax and about as wide as cephalothorax. Sternum oval, narrow in front clothed with grey pubescence. Chelicera short, deep-brown coloured, with a single tooth on inner margin. Legs strong and stout, clothed with hairs and spines. I legs conspicuously robust and dorsal side of femur very much bulging as in figure 3, tibiae and metatarsi provided with three and two pairs of ventral spines respectively. Female legs formula 1431. Metatarsal and tarsi of all legs and palp of female conspicuously pale in colour.

Abdomen: Longer than wide, nearly elliptical in shape, narrowing behind, clothed with grey and some black hairs. Dorsal side of posterior half of abdomen provided with grey chevron and posterior lateral sides also provided with two small grey spots, as in figure 1. Ventral side light in colour. Epigyne as in figure 4.

Holotype one female in spirit.

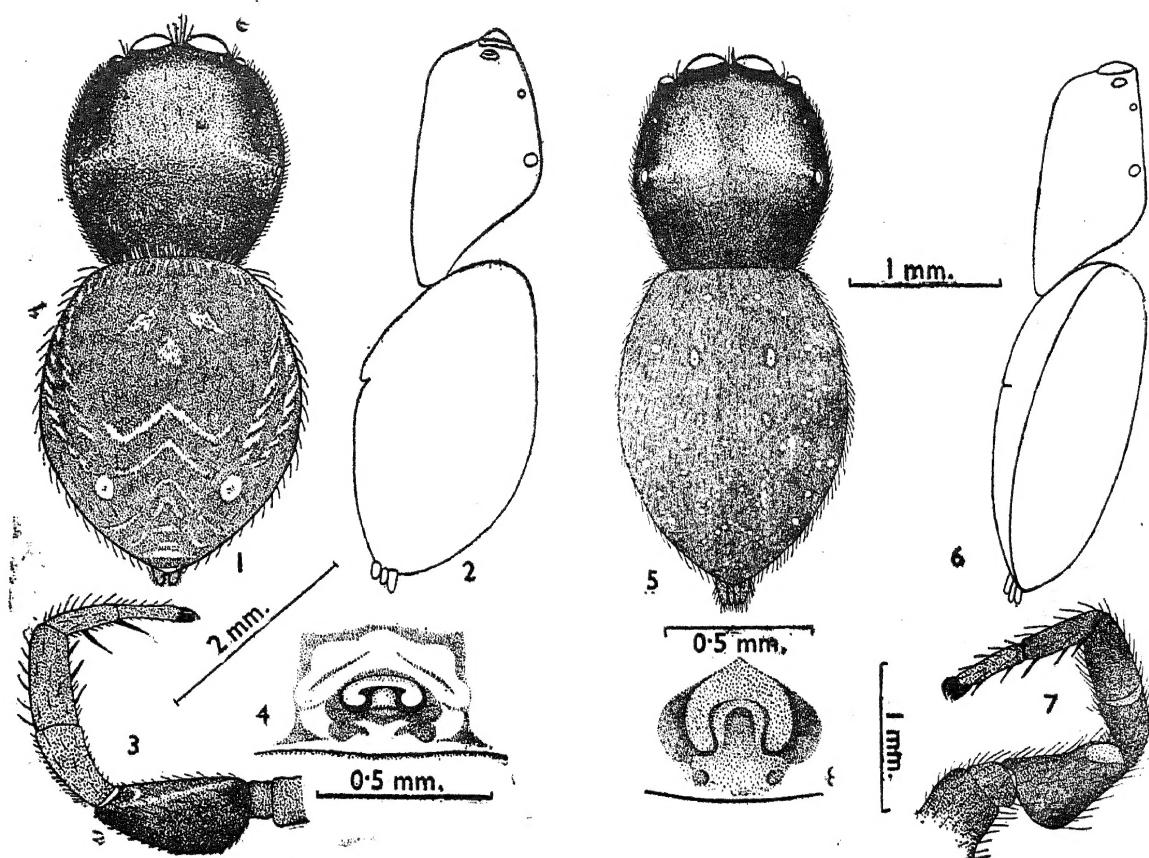
Type locality: Pashan, near Poona city, Maharashtra, India.

Coll. U. A. Gajbe, 4 September 1974.

This species resembles *Zygoballus bettini* Peckham but it is separated as follows: (i) Anterior end of abdomen with deep brown patch but in *Z. bettini* abdomen with a white basal band. (ii) Epigyne also structurally different.

2. *Zygoballus narmadaensis* sp. nov.

General: Cephalothorax and abdomen deep brown, legs brownish-green. Total length 3.50 mm. Carapace 1.50 mm long, 1.20 mm wide; abdomen 2.20 mm long, 1.50 mm wide.



Figures 1-4. *Zygoballus pashanensis* sp. nov.
1. Dorsal view of female, legs omitted. 2. Lateral view of female, legs omitted. 3. First leg, showing femur. 4. Epigyne.

Figures 5-8. *Zygoballus narmadaensis* sp. nov.
5. Dorsal view of female, legs omitted. 6. Lateral view of female, legs omitted. 7. First leg, showing femur. 8. Epigyne.

Cephalothorax: High and flat on the top, a little longer than wide, and behind with a very steep thoracic declivity over which the abdomen projects, clothed with mixture of grey and black hairs. Posterior portion of cephalothorax slightly narrower than the anterior. Eyes of anterior row close together in a slightly recurved row, all eyes pearly white. Second row of eyes very small and much nearer the first than the third row. The third row of eyes situated on a slightly elevated ridge and near the middle of cephalothorax and about as wide as the cephalothorax. Sternum oval, narrow in front, clothed with fine pubescence. Chelicerae short, light brown, with a single tooth on inner margin. Legs strong and stout, clothed with hairs and spines. I legs robust and stronger than the others and dorsal side of femur very much bulging as in figure 7. Tibiae and metatarsi of I provided with three and two pairs of ventral spines respectively. Female legs formula 4132.

Abdomen: Longer than wide, narrowing behind, clothed with fine grey and black hairs. Dorsally provided with two pairs of sigilla as in figure 5. Ventral side pale. Epigyne as in figure 8.

Holotype one female, paratype three females in spirit.

Type locality: Baria village, Bank of Narmada river near Jabalpur, Madhya Pradesh, India, Coll. D. K. Ghosal, 26 December 1971.

This species resembles *Zygoballus pashanensis* sp. nov. but it is separated as follows: (i) Total length is much less than *Z. pashanensis* sp. nov. (ii) Female legs formula 4132 but in *Z. pashanensis* female legs formula 1432. (iii) Epigyne also structurally different.

REFERENCES

- Peckham, G. W. and Peckham, E. G. Revision of the Attidae of North America. *Wisc. Acad. Sci.* 16 (1) 589 (1909).
- Simon, E. *Histoire Naturelle des Araignes*, Paris 2 643 (1897).
- Tikader, B. K., Studies on some jumping spiders from India (Family: Salticidae). *Proc. Indian Acad. Sci.* 78 68-72 (1973 a).
- Tikader, B. K., Studies on some ant-like spiders from India (Family: Salticidae). *Proc. Indian Acad. Sci.* 78 59-67 (1973 b).
- Tikader, B. K., Studies on some jumping spiders of the genus *Phidippus* from India (Family: Salticidae). *Proc. Indian Acad. Sci.* 79 120-126 (1974 a).
- Tikader, B. K., Studies on some jumping spiders of the genus *Marpissa* from India (Family: Salticidae). *Proc. Indian Acad. Sci.* 79 204-215 (1974 b).